

# Snowmass track: Hadronic Tomography at the EIC

... and the Energy Frontier

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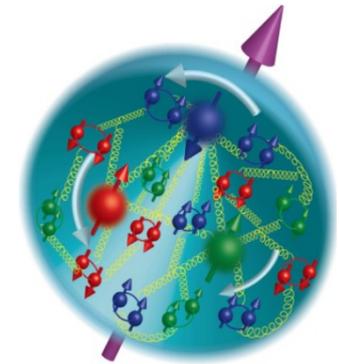
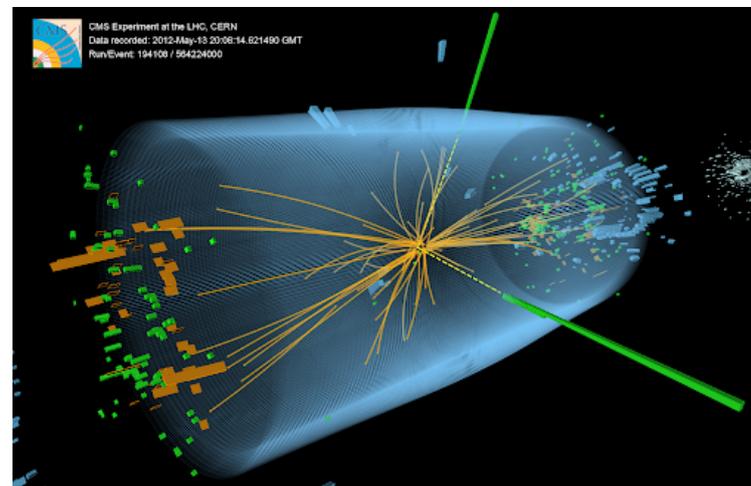
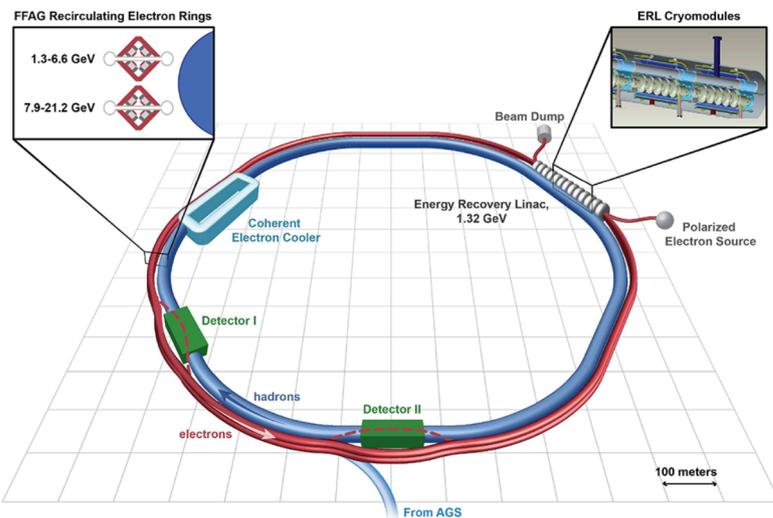
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*SnowMass2021*

Sept. update: toward Snowmass proceedings



- WHAT *broad* representation of physics opportunities in tomography/HEP
  - 160+ LOI contributors over PDFs, GPDs, LHC TMD meas., ...
  - carry forward insights from EIC YR studies

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- BY WHOM
  - open to the full community, but with organizing structure
  - identified sub-concentrations (PDFs, TMDs, ...)

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- HOW
  - assembling a master document to collate all relevant pieces
  - open editing of topical sub-docs, curated by coordinators

[LINK TO OVERLEAF](#)

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- WHEN
  - final proceedings contribution: **March 2022** [1/2 year...]
  - short timescale to finalize; must prioritize key areas

# Snowmass proceedings: current status

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- during the Snowmass pause, a considerable amount of physics content has accumulated

→ includes relevant, expanded findings from EIC YR

- impact studies on **PDFs, nPDFs**
- application to high-energy neutrino scattering
- **TMDs, TMD fragmentation**
- **GPDs**; lattice simulations

→ explicit impacts on Snowmass objectives (LHC,  $\nu A$ ) must be extended

- in coming 6 months, key areas must be completed

- **spin-polarized** distributions, measurements
- connections between 1D, 3D observables (forthcoming)
- EIC for **high-energy QCD**
- nuclear-medium studies and UPCs at the LHC

→ currently in open-collection of material; organizers soliciting inputs